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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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ACTION FOR LOSS OF LIFE.

The Canadian Court of Appeal has delivered judgment in the case of Sims vs. Dominion Fish Co., known as the Buffalo Fish Co. This was an action tried at Gore Bay last year, wherein damages were asked for the loss of the life of Edward Sim, who fell overboard off the tug Seagull, owned by the defendant company, and was drowned. It is said that the accident happened while the deceased was dragging a fish box along the deck of the boat, and that the immediate cause of the casualty was the breaking of the handle of the box, the wood of which was imperfect. The jury awarded the plaintiff $1,500 and from this decision the company appealed. The Court of Appeal holds, for the first time, with the Steamboat Inspection Act, which requires that all steamboats, tugs and other craft, plying the waters on the Great Lakes, must be equipped with certain life-saving appliances. It was contended on behalf of the company that this provision was only made in favor of the passengers and not in favor of the crew; but the Court of Appeal held that the provisions of the Act are made for all those who have any connection with the vessel.

The plaintiff alleged that if a life-buoy with a life-line had been hanging in a convenient place on the tug's deck it could have been thrown to Sim when he fell overboard and that his life would have been saved. From this out it will be necessary for all tugs, as well as every other vessel, to have the life-buoy placed in a convenient position on the deck of the vessel. The appeal of the defendants was dismissed with costs.

LAKE SUPERIOR POWER.

Accordingto bids asked for excavation work, etc., the Lake Superior Power Co. have in immediate contemplation the building of a second water power canal on the Canadian side of the St. Mary's river. The present canal generates power for the operation of the big pulp mill, alkali works, electric light plant and iron works, and has a capacity of 25,000 horse-power. The new canal will parallel the one in operation on the north side, and will be 150 feet in width and of sufficient depth to give a head of water so as to develop 40,000 horse-power. Most of this will be utilized electrically in the operation of the big steel plant now building, and for other enterprises yet in embryo. It is designed to complete the canal within eighteen months if possible. The project is one that will materially benefit the two "Soo's." When the water power developments now under way are finished, the company will have at its command the vast amouut of approximately 120,000 horse-power of what is usually considered the cheapest motive force on earth.

IRON ORE DOCKS.

The lake season in ore traffic opened with one new dock of modern design added to the already marvelous equipment at the Lake Superior points of shipments of iron ores. The Chicago, Milwaukee & St. Paul railway, by way of the new Escanaba & Lake Superior railway from Channing to Escanaba, gains access to the ore handling business on the upper lakes. The company completed its ore dock at Escanaba in October, 1900, but too late to figure prominently in last year's movement. This pier is the twenty-third in number at the seven great shipping ports—Duluth, Two Harbors, Escanaba, Superior, Marquette, Ashland, and Gladstone.

The new St. Paul pier is 650 feet long, 52 feet wide at the top, and 66½ feet above high water mark. There are 120 pockets, and its capacity is 28,000 tons or ore. The dock carries four railway tracks. This addition to the storage capacity of the ore piers at the upper lakes will bring the total equipment up to 820,000 tons capacity at the immediate point of shipment available for the season of 1901.

ASTRONOMICAL DATA FOR JUNE.

Astronomical data for June, 1901, furnished the MARINE RECORD by the Washburn observatory:

Mercury will be very favorably situated for observation the middle portion of the month. On June 15th it reaches greatest elongation east, and for some days preceding and following this date the planet may be seen as a bright star in the evening twilight, slanting down to the horizon in the same course with the sun, and setting at the same point. On June 15th the planet does not set until 9h 25m; so that there will be a good interval for observing it, if clouds or smoke do not obscure the low western sky too much. Venus is becoming higher each day as the brilliant evening star. This planet also sets at about the same point as the sun, but about an hour earlier than Mercury when the latter is at its highest. Mars is still the red planet seen in the western sky in the evening. Jupiter and Saturn appear in the southeast in the evening, and form an interesting pair of planets, the former by far the more brilliant, but the latter also conspicuous, and a little east and north of Jupiter.

	SUNRISE.	SUNSET.
June 1	4:15	7:23
June 11	4:12	7:30
June 21	4:12	7:34
June 30	4:15	7:34

The times of the moon's phases are:

Full moon	June 2	3:53 a. m.
Third quarter	June 9	4:00 p. m.
New Moon	June 16	7:33 a. m.
First quarter	June 23	2:59 p. m.

The principal fixed stars visible during the month in the evening hours are:

To the west, Regulus. Near the meridian, Arcturus and Spica. To the east, Antares and Vega.

FULL DEPTH OF THE ST. LAWRENCE CANALS.

The certainty of the 14-foot navigation in the St. Lawrence channel and canals between the Great Lakes and Montreal, has been placed beyond doubt by the late passage of the Ottawa Forwarding Co.'s propeller Arabia. The steamer reached Montreal last week, drawing 14 feet 2 inches. This is the deepest draught under which any vessel has ever been taken down.

"THE pen is mightier than the sword," quoted the man who clings to proverbs. "My dear sir," rejoined the modernist, "it is no longer a question of pens or swords. The debate now is as to whether the typesetting machine is mightier than the Maxim gun."—From the Washington Star.

ATLANTIC PASSENGER TRAFFIC.

"One of the chief reasons for the marked increase in the saloon travel between Europe and this country is that we are now sending goods to every corner of the earth," said the American agent of one of the larger steamer lines, to the New York Mail and Express. "Many Americans make six or more trips a year to the other side, where formerly they did not cross at all. Englishmen and Germans who are engaged in the manufacturing trades, industrials and even food raising, visit us much oftener now. Quite a few come to look around with an idea of ascertaining how we have made such gigantic commercial strides in such a short time, but the great majority, realizing the necessity for adopting American methods where practicable, come here to purchase machinery and the like, without which it would be impossible for them to copy Yankee thrift and industry.

"The English ranchman bound for the far west is not nearly as common on ocean ships as he was five or ten years ago. He is now in the mining or engineering business in Mexico and Central America, although there are still many Britons engaged in the cattle rising business out west and throughout Canada. Some of the older vessels of our line shipped a large number of the mules and horses that were sent to South Africa from New Orleans for English army service. It was surprising to discover what a big percentage of these animals came from the ranches of Englishmen who had settled in the north and west.

"Another reason for the increase in the number of travelers across the ocean is the renewal of the good feeling between the two continents, particularly between England and the United States. There was a time, not long since, when neither cared to buy from the other. England was then in a superior position commercially and industrially, and we were not making locomotives, steel rails, cars, heavy machinery or other expensive creations for the export trade. Since we began to send whole railroad trains to not only England, France and Germany, but to Australia, Russia, China, Japan and the East Indies, our drummers, merchants, engineers and artisans have broken through the foreign rush line like a champion football eleven, and a display of their wares and samples in every cubby hole of the globe has caused buyers to come in person to look us over more fully.

"Where ships in the past were satisfied with sixty or seventy-five cabin passengers each trip at this season, they are carrying from 120 to 225 now, if not one way certainly the other. The number of buyers who are constantly on the deep has become enormous. Naturally Canada has benefited by this eagerness to patronize American methods and manufacturers, and she is sending drummers abroad. The ideal drummer's lair is no longer the American Pullman car, but the smoking saloon of the big trans-Atlantic liner."

CONTINUED LITIGATION.

H. R. Spencer, Esq., of Searle & Spencer, Duluth, will appear in behalf of the steamer Arabian, in the admiralty case of Marine Insurance Co., of London, to be tried again at St. Paul, Minn.

The case is one that has attracted much attention. It is now before the United States Court of Appeals for the second time. The insurance company claims to have paid for heavy damages to the Minnedosa, which damages, it is claimed, were due to the steamer Arabian. Judge Lochren of the United States Circuit and District Court awarded damages against the Arabian and the case went to the United States Court of Appeals, where the decision was reversed. The case went back to Judge Lochren's court for a rehearing on other points subsequently, and now it is up to the United States Court of Appeals again, Judge Lochren having awarded damages a second time as he did in the first case. The award against the Arabian is about $9,900.

CHICAGO.

Special Correspondence to The Marine Record.

About 100,000 feet of pine timber has been picked out of the lake near Grand Haven.

Freights dropped to 1¼ cents on corn, Wednesday, with light chartering and no demand for tonnage.

The Graham and Morton Line has chartered the steamers McVea and Saugatuck and will use them in the Holland-Chicago run.

The large steel steamer Mary C. Elphicke will be launched from the South Chicago yards of the Chicago Ship Building Co. on Thursday.

The survey on the steamer Alva, at Duluth showed that he will require 30 new plates and 16 feet of stem replaced. In addition there is a large amount of inside work to be done for the bow was badly smashed and the frames were bent in every shape. The bill will probably reach $25,000 to repair damage through stranding on the rock near Copper Harbor.

The Benton Harbor Naval Militia have fitted out the schooner Waleska for a practice ship, and in tow of a harbor tug they have had a cruise on the lake. The summer cruise will be made to Bnffalo to visit the exposition. The question is, whether this corps should not have been ordered to Detroit for drill instead of being left to scull on their own particular curve in a dugout with neither aim or object so far as naval reserves are concerned.

Charles Jefferson, of Manistee, son of Capt. Ralph Jefferson, lost on the schooner Rand, gives it as his opinion that the schooner had been in collision. He says: "After a thorough investigation of the Rand wreck, and judging from a sailor's standpoint, I can unhesitatingly state that the Rand was in collision with either a steamer or sail vessel, and that she was struck near the stern, part of the hull and small boat being carried away. I believe that the crew were in the stern at the ttme, that they rushed forward to get out of the way and perished. The wreckage bears the appearance of having been crushed by a blow."

The Licensed Tugmen's Protective Association has come off victorious in its strike against the floating property of Louis Sands, lumberman, vessel and tug owner, of Manistee. For a couple of weeks the schooners Isabella Sands and A. W. Luckey have been tied up in the south branch of Chicago river and the Arundal in Milwaukee harbor, because the tugmen refused to tow them out, owing to the fact that Mr. Sands would not employ union men on his Manistee tugs. Mr. Sands has now settled matters, although it was at one time thought that he would sell his boats rather than suffer the dictation of those not in his employ.

The Northwestern Steamship Co.'s steamer Northtown, Captain Pederson, left this city for Europe on Friday last. The vessel carries a part cargo of agricultural machinery and provisions for Hamburg and oil-cake for Antwerp. It is to be hoped that she will skin through the lakes, the Welland and St. Lawrence canals with better luck than her sister ship preceding her. General Manager W. S. Purdy is known on the articles as supercargo at $40 per month, and quite enough for him, too, as he forced the captain to leave on Friday night by insisting that the superstition of Friday sailing was all bosh and that there was no such a word as "hold on" even for an hour or two.

The passenger steamer Darius Cole will lie at the dock at South Haven all summer, notwithstanding there is going to be the biggest business ever done on the lakes with calls for every boat fitted for carrying passengers. There is no way of clearing the boat until the Michigan supreme court decides who are really the owners. "The Williams Transportation Co.," said Charles E. Kremer, Esq., their attorney, "takes the ground that it does not own the Cole and has nothing to do with the boat. The company cannot very well do anything after taking that position. On the other hand the Star-Cole line, of Detroit, makes the plea that it sold the Cole to the Williams line, and it has nothing more to do with the boat. The Cole is, therefore, without owners and there is no possible way of arranging matters so that she can be placed in service."

DULUTH-SUPERIOR.

Special Correspondence to the Marine Record.

The steel steamer Alva, Capt. Mulholland, stranded about five miles east of Copper Harbor on Sunday. There is a foul rocky bottom where she fetched up, and considerable hull damage is to be looked for after the vessel dry docks.

Oil barge 86 of the Standard Oil Co., arrived this week, at the West Superior tanks, with 650,000 gallons of oil, or 13,000 barrels, the first cargo of the season. The oil stocks were low and the new supply arrived very opportunely.

The Duluth Log Salvage Co. has awarded a contract to J. O. Smith for collecting the beached logs on the north and south shores of Lake Superior this season. He will use the tug Sarah Smith for the purpose. Peyton, Kimball & Barber will saw the logs collected.

Two Harbors will probably send forward about five million tons of ore this season, or nearly one million tons more than last year. There is no port in the world that has ever shipped such an enormous quantity of iron ore. Escanaba shipments used to be thought phenomenal, but it never toed the mark like Two Harbors.

Duluth received an addition of nine large steel cargo steamers this week, being the former fleets of the Menominee Transit Co., and the Mutual Transportation Co., of Rockport, Ohio. They were formally transferred to the Pittsburg Steamship Co., the corporated name used by the United States Steel Corporation, to operate on the lakes. Bills of sale were filed and the enrollment papers will follow shortly. This means an addition of 23,720 tons, making the enrolled tonnage at Duluth 372,774, and equaling Cleveland within the small margin of 12,000 tons. Both fleets are well known, and for several years have been managed in the office of M. A. Hanna & Co., and hammered at it in the iron ore trade harder than any boats ever built on the lakes.

The rate on lumber from Duluth to Chicago is $2.50, or 25 cents better than to Lake Erie. The additional 25 cents for boats going to Chicago is on account of the fact that boats cannot usually get return cargoes, tow bills are high and fuel also costs more on Lake Michigan than Lake Erie. It is said that we are entering the dull season in lumber shipments, and that it is not good policy to hold out for the $2.50 rate to Lake Erie ports, but vessel owners know perfectly well that the lumber must be sent forward, that they can carry it and discount all rail rates for delivery, so that there is little advantage in waiting a couple of months before making the attempt to procure fair living freight rates, nor is $2.50 a fraction more than the vessel is entitled to or for the lumber to pay for transportation.

"Illustrated Duluth," is the title of a neatly printed brochure compiled by Thos E. Hill, and published by the Duluth Improvement Association. It contains much instructive matter of a city which is the largest primary wheat market in the world. As there is a large area of the best wheat land in the world tributary to Duluth, which is estimated as capable of producing 256,000,000 bushels of wheat annually, and as Duluth has nearly the largest registered tonnage of any port on the lakes, the city will continue in the lead as a grain port. With a deep waterway from the head of navigation on the Maumee river to the Ohio river, the products of Duluth and all the country tributary to the lakes could reach tidewater on the Gulf of Mexico and the Orient through the Panama canal. When the great water power at Duluth is developed, a second Pittsburg may spring up.

Evidently Capt. Singer will be muchly pestered with actions of various sorts, owing to the peculiar manner in which his little steamer burned, with loss of life, etc. The first action commenced as the result of the Bon Voyage disaster has been filed in the municipal court by Allen and Burns, a local flour and feed firm, who sue the White Line Transportation Co., the owners of the ill-fated boat, for $63, the alleged value of 2,450 pounds of flour and 2,000 pounds of feed they had shipped on the Bon Voyage to Eagle Harbor, Mich., but which, of course, was lost en route. J. A. Hanks, Esq., is the attorney in the case. Notwithstanding these actions, it should be remembered that the owner's liability only extends to the value of the vessel, and as the Bon Voyage is a total loss, the owner's funds invested elsewhere can not be held, even if gross culpability resulting in loss of life and property is proven.

THOSE who are interested to any extent in shipping, could find no better companion or information bureau than a copy of the MARINE RECORD, published at Cleveland, Ohio, each week.—The Mirror, Ogdensburg, N. Y.

CLEVELAND.

Special Correspondence to The Marine Record.

Capt. A. H. Reed has been appointed master of the steamer Harvard, vice Capt. Henry Peterson.

The river could stand more dredging yet as the steamers J. C. Gilchrist and Tacoma lost a day through grounding near Central Way bridge on trying to reach the upper furnaces.

The steamers Panther, Capt. J. H. Madden, and the J. T. Hutchinson, Capt. J. H. Smith, attempted to pass each other in the Bridge street draw at Ashtabula on Wednesday and were held there for some time. They were finally released without damage.

Mr. J. C. Gilchrist is still after tonnage; this week he corralled four of the Whitney fleet, the E. W. Oglebay, Merida, Mescota and the D. M. Whitney. It looks as if the bulk of tonnage was fast drifting into fewer hands, or, at least, managing owners.

The slump in the grain trade has forced more vessels on the market for ore, and while rates still hold at 80 cents from ports at the head of Lake Superior, 70 cents from Marquette and 60 cents from Escanaba, the feeling is not strong and in some cases it is hard work getting charters.

The ore receiving docks at Lake Erie ports can only handle a certain amount of ore, and detention has already been experienced. This feature being kept in view should affect future chartering, and vessels that have not been placed ahead will no doubt get better than season rates in the near future if possible detention is figured in.

The lumber rate is fairly established at $2.50 from the head of the lakes, as the demand for tonnage has been brisk. The movement of lumber is increasing, all of the boats now being in service and chartered well ahead in many instances. The docks here are doing all the discharging that they possibly can and the lumber shovers have no idle time.

Owing to tonnage bunching at Lake Erie ports the past week, coal freights weakened and dropped to 35 cents to the head of the lakes, though several large tows went up light rather than accept the reduction, and perhaps some detention at loading. It is expected that the rate will go back to 40 cents when the present tonnage gets more evenly divided at other ports.

The Northwestern Steamship Co., advertise to carry cargo direct to Lake Michigan from Hamburg June 6, London and Liverpool June 8, and the Northtown which only left Chicago early on Saturday morning last is booked for Hamburg June 15. This is a revision of the sailing schedule as the first boat was booked at Liverpool for May 21 though she has not even reached there at this writing.

Ashtabula, Conneaut and Fairport are making phenomenal efforts to take care of the iron ore cargoes consigned there, 54,000 tons entered at Conneaut in one day, and on Tuesday no less than 8 steamers sailed, after discharging large cargo. The largest cargo ever discharged at Conneaut was 7,300 tons, this season the Marsala has delivered 7,000 tons. On Monday 568 cars, aggregating 25,500 tons of ore was sent to the furnaces by rail.

The stockholders of the Willoughby Dock Co., have organized at Youngstown by the election of the following directory: George Tod, E. L. Ford, John Stambaugh, J. G. Butler, Jr., H. H. Stambaugh, and C. D. Hine. The directors elected J. G. Butler, Jr., president; E. L. Ford, vice president; H. H. Stambaugh, secretary and treasurer. The company has secured a large tract of land at the month of the Chagrin river, where they will erect extensive ore docks.

The following local meteorological observations are furnished by the office of the U. S. Weather Bureau for the week ending June 5: Prevailing wind direction during week S.; highest velocity 36, S. on 5th. Mean temperature for week 59; highest temperature 85, on 5th; lowest 44 on 3rd. Sunrise and sunset data, computed for local time at Cleveland: June 7th, sun rises at 4:23, sets at 7:32; June 10th sun rises at 4:23, sets at 7:34; June 13th sun rises at 4:23, sets at 7:36.

The Tashmoo was blowing off all the way down the lake, during the race on Tuesday last, while the Erie always had ability to use more steam than she could make, the difference being in the condensing powers of the two boats. Taking it all around, it has never been known of two boats so evenly balanced, and it is suggested that if another race were held no one would wager a cent one way or the other. Some of the Detroiters have suggested another test of speed at some future time, on Lake Huron or Lake Superior. It is hardly possible that such a race will be held.

DETROIT.

Special Correspondence to the Marine Record.

The Algoma Steamship Co. has started the Ossifrage between Windsor and Port Arthur and she will make weekly trips on this route during the season.

Four boats belonging to the David Whitney estate have been purchased by J. C. Gilchrist, of Cleveland. They are the D. M. Whitney, E. W. Oglebay, Merida and Mecosta.

As the dry docks here had work enough the steamer James Fisk, Jr. sunk in collision with the S. C. Reynolds, was taken to Port Huron. Her repair bill is estimated at about $8,000.

In the Detroit marine postoffice service during May, 7,491 pieces of mail were collected from boats and 22,447 delivered. The marine service issued 69 money orders for an aggregate amount of $1,641.87 and registered 14 pieces. The vessel passages numbered 2,002.

The steel steamer building by the Jenks Ship Building Co., Port Huron, for Capt. Samuel Neff of Milwaukee, will be launched on Wednesday and christened C. S. Neff. She is designed for the lumber and salt trade and is 215 feet long, 38 feet beam and 14 feet deep.

The large steamer W. R. Linn, Capt. J. W. Morgan ran into the lower gates of the Poe lock at St. Mary's Falls canal and did considerable damage. The intermediate gates are being used, pending repairs, which shortens the lock by 100 feet. The accident was caused by a misunderstanding of signals.

Secretary H. S. Barter, of the International Longshoremen's Association, with an office at Detroit, has sent charters to the new lodges which have been organized at Prescott and Parry Sound, Ont. The forming of these lodges, it is thought, will lead to the establishing of lodges at Toronto, Montreal and Quebec.

Through a misunderstanding of signals, or as it is said, the failure of the wheel chains to work properly, the White Star Line side-wheel steamer Greyhound ran into the dock at First street on Tuesday and splintered up about 20 feet of it. No injury was done to the boat and the dock can soon be repaired. Capt. Chris. Moore was in charge of the Greyhound at the time of the accident.

The stranding of the steel steamer Harvard, Capt. H. Peterson, on a rocky bottom below the Line Kilns, will no doubt show serious damage to the hull as she hung on the rock amidships with enough water at either end to float her. Every possible assistance was sent from here and she lightered about 450 tons, as jettison could not be permitted so near the Line Kiln Crossing.

BUFFALO.

Special Correspondence to The Marine Record.

Lumber cargoes are bound down the river to Tonawanda at a great rate, no less than 18 vessels carrying 10,000,000 feet reached there on Friday and Saturday last.

The twin screw exclusively passenger steamer North Land, owned by the Northern Steamship Co., will open the season next Monday, June 10, between this port and Chicago.

The great Tashmoo—City of Erie race developed a speed of 22¼ miles an hour, but there was nothing of 24 or 25 miles about it nor anything miraculous done on either side.

There are no vessels changing ports for coal cargoes and yet tonnage is not in demand, brokers, are looking for a slight advance in freights but the shippers don't seem to be in any particular hurry to effect charters.

Col. John W. Partridge has finished an investigation of the western division of the Erie canal. He found the waterway in good condition except that the banks are heavily soaked by the heavy rains. He has given special instructions that a careful watch be kept for possible breaks in view of that condition.

The handsomest steamyacht ever at this port reached here this week. The Sagamore, Capt. White, is barkentine rigged and is owned by Mr. E. C. Lee, who is vice-president of the Consolidated Lake Superior companies, which control the local corporation at Sault Ste. Marie and Michipicoten, Ont., better known as the Clergue enterprises. The party, which is interested in Canadian investments, left Philadelphia on the 15th instant, calling at Halifax, Sidney, Tadousac and other ports on their way to Lake Erie. The Sagamore is 186 feet over all, 160 feet on the water line, 27 feet beam, 12 feet depth and has a crew of 20 men. Her speed is 16½ miles an hour, and in 1898 she was the flagship of the New York Yacht Club. She was built in Bath, Me., in 1897 and purchased by her present owner this spring.

FLOTSAM, JETSAM AND LAGAN.

Three of the Toledo tug lines have gone into a pool to fight the trust. The three tug owners who have combined their interests are Sullivan, Schenck and Dunseith. The line will be known as the Toledo Harbor Tug Line. Commodore L. S. Sullivan has been made manager. The Toledo Harbor Tug Line has eight tugs. The trust will have three tugs and also three of the Nagle line, which will be operated by the trust under an agreement which covers this season, and which will possibly be made permanent.

Mr. Henry Duncan writes to the London Daily Mail as follows: "I observe a statement that Chicago is now sending a vessel, 'its first,' to Europe by way of the Canadian canals, the St. Lawrence and the Atlantic. To this I make a mild remonstrance, for as far back as 1863, or thereabouts, I purchased a schooner at Chicago, loaded her with petroleum at Sarnia, on the River St. Clair, Canada, and despatched her to Liverpool. That she was lost in the Gulf of St. Lawrence just as she was about entering the Atlantic in no way detracts from my claim to be the pioneer of American inter-lake and ocean navigation."

During the fiscal year ending last June not one American merchant vessel entered or cleared from any port in Norway, Sweden, Denmark, Germany, Holland, Italy, Austria, Greece, Turkey or Russia. Two small American craft sailed out of France, one from Belgium, and eleven sailing vessels cleared for or entered the harbors of the United Kingdom. The American merchant flag, save on one line, practically disappeared from the Western Ocean and the Mediterranean and from all the seas, gulfs and estuaries that woo trade round about from Archangel to Odessa. This is protection with a vengeance. Fifty-five years ago the waters of the globe were whitened with American sails, and we were the favored traders. In 1856 four and one-half millions of cargo tons entered our ports, and of this trade three quarters was carried in ships built, owned, manned and commanded by Americans. Of the whole value $485,000,000 was credited to our keels and a little over $150,000,000 to foreign ships. Last year less than 9 per cent. of our national trade was freighted in home vessels.

LETTERS AT DETROIT MARINE POST OFFICE.

JUNE 5th, 1901.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Bainbridge, R. S.
Brown, Carrie
Barker, Frank, J. B. Ketcham
Brown, G. A., Marina
Banker, Dave
Burque, Walter, Gratwick
Belch, Jos.
Cunnin, Jno.
Channey, Alice C.
Cartwright, Peter, Armour
Cass, Thomas
Courtney, Percy
Caswell, G. L.
Doyle, J. S., Topeka
Dwyer, Chas.–2.
Emley, Alex
Emeigh, Jerry–2. Lenty.
Ford, Frank
Farrell, Patrick
Franklin, J.
Fox, J. J., Spaulding
Gonyan, Chas.–2. Planet
Hoover, Chas.–2. Cranage
Harris, Roy
Jackson, Arther–2. Roby
Mugridge, Frank
Morrisson, Geo. C.
" Herbert
McDonald, Geo. D.
McLarty, A. J.
McCormick, And.–2. Kaliyuga
McDonald, Geo., R. Emily
O'Fene, Larry, Planet
Possee, Geo.–2. Genoa
Potter, H. E.
Ramond, Joe
Smith, Geo. E., Wolf
Sanders, M. D.
Schlett, Wm., Fostoria
Walker, Bert.

F. B. DICKERSON, P. M.

RUSSIAN VERSUS BRITISH COMMERCE.

Consul-General Bowen, of Teheran, under date of February 25, 1901, reports the establishment of a Russian line of steamers between Odessa and the Persian Gulf. The trade with Southern Persia, says the Consul-General, has hitherto been so conspicuously in the hands of the English that their influence was considered to be practically unrivaled. It seems, however, that Russia has decided to enter into competition with Great Britain in this sphere, although at first she will labor under a serious disadvantage, as Russian goods are generally inferior to those of Great Britain. In order to overcome this drawback, Russia, it is said, will subsidize the new line and grant bounty concessions to all goods carried. It is intended, adds Mr. Bowen, that the new line of steamers shall supply the Persian market with sugar, cotton goods, and petroleum; but, as Persia has neither produce nor goods that are needed in Russia, the return cargoes will be practically nil, and it is doubtful whether the line will ever be self-supporting.

NOTICE TO MARINERS.

DOMINION OF CANADA—ONTARIO.

TEMPORARY CHANGE IN POSITION OF RONDEAU FRONT RANGE LIGHT-HOUSE.—To permit of repairs to the outer end of the east breakwater pier at the entrance to Rondeau harbor, north shore of Lake Erie, the front range light-house, which now stands upon it, with its center 31 feet north of the south end of the pier, will be forthwith moved inwards 100 feet in the line of range, and parallel to the channel face of the pier; that is 100 feet N. by E. ½ E. (N. 14° 12′ E. true).

Upon completion of the repairs of the outermost block the tower will be replaced in its former position, of which further notice will be given.

Mariners are warned to allow for the additional distance between the light and the end of the pier while it is in its temporary position.

The metal work of the square, galvanized, iron lantern on the front range light-house, and of the polygonal cast-iron lantern on the back range light-house, at Rondeau, is painted brown.

CHARACTER OF SOUTHEAST SHOAL.—An examination of Southeast shoal, off Point Pelee, Lake Erie, made on the 11th, 13th and 14th instant, by Mr. W. J. Stewart, D. G. surveying steamer Bayfield, and by the Chief Engineer of this Department, shows that throughout its extent it consists of firm fine sand; no signs of rocky ground, as marked on charts made from latest surveys, or of loose stones, could be found. The shoal is also making slightly to south-westward.

POSITION OF BATTLE ISLAND LIGHT.—The lighthouse on Battle Island at the east entrance to Nepigon Bay, north shore of Lake Superior, is on the southwest point of the Island, and not in the middle of the island, as shown on the Admiralty chart, No. 322. The light-house stands on top of a knoll; the light-house keeper's dwelling is on lower ground, 300 feet northeasterly from the light-house.

CHANGE IN CHARACTER OF LIGHTS AT PORT DALHOUSIE.—On and after 1st June, 1901, the light shown from the back range tower at Port Dalhousie, north, or Lake Ontario, entrance to the Welland canal, will be changed from fixed red to occulting white showing a bright light for 30 seconds, and eclipsed for 5 seconds alternately. The illuminating apparatus will be catoptric, and the illuminant electricity. In the event of the electric power at any time failing temporarily, a fixed red light will be shown as at present until the occulting light can again be put in operation.

At the same time the illuminating apparatus in the front tower will be changed in character from catoptric to dioptric of the seventh order, and the illuminant from oil to electricity, but no change will be made in the characteristic of the light, which will remain fixed white as at present.

PORT MAITLAND.—The light-house on the west pier at Port Maitland, mouth of Grand river, Lake Erie, consists of a square, wooden watch room, with sloping sides, painted white, standing on a skeleton framework of steel, painted brown, and surmounted by a polygonal iron lantern painted red.

The height of the building from the deck of the pier to the vane of the lantern is 41 feet. It stands 100 feet from the south end of the west pier, on a block raised 5 feet above the general deck of the pier, and 13 feet above the present level of the lake.

The Chief Engineer of this Department reports that on the 16th instant there were only 8 feet of water in the entrance to Port Maitland, at a point in the axis of the channel between the piers, and about 300 feet south of the west pier head. It was reported to him that there was better water both east and west of the axis of the channel.

TORONTO HARBOR—Details received respecting the position of the front range light on the Queen's wharf, western entrance to Toronto harbor, Lake Ontario, show that it has been moved about 40 feet from its former position to the extreme northwestern corner of the wharf, and is now situated 215 feet S. W. by S. from the back or red light. The new line of range leads into the channel between the breakwaters through the axis of the bouyed channel, which is 200 feet wide.

A breakwater, 20 feet wide, and 1,535 feet long, and not shown on the charts, exists on the northern edge of the shoal running from the island toward Queen's wharf. It is parallel to and distant 354 feet from the wharf of which the channel face is 902 feet long.

PROTECTION WORK AT SNAKE ISLAND.—The circular steel pier, supporting the light-house tower at Snake Island shoal, near Kingston, Lake Ontario, has had a timber work protection breakwater, 75 feet long, built around it. It has a pointed nose on the west side, and stands 4 feet above the water. A small boat-house stands on it at the side of the tower.

HAND FOG HORNS AT LIGHT STATIONS.—There are hand fog horns at the following light stations in the Ontario lighthouse division, which are used in answer to the fog signals of vessels, whenever they are heard from the stations:

No. in Canadian list of lights and fog signals, 1900.	Name of Light Station.
1186	Rondeau Harbor, Lake Erie.
1418	Gargantua, Lake Superior.
1428	Battle Island, do.
1440	Pie Island, W. entrance to Thunder Bay.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries,
Ottawa, Canada, May 28, 1901.

ANOTHER EASTERN SHIPBUILDING PLANT.

A Philadelphia dispatch states that a company with a capital of at least $3,000,000 is being organized to build another shipbuilding plant on the Delaware river. The promoters of the company claim that $2,600,000 has already been subscribed and that they have optioned a plot of ground at Chester, Pa., where it is proposed to erect the plant. One of the leading factors in the new concern is State Senator W. C. Sproul, of Delaware county, a son-in-law of the late John Roach, who represents the largest investors.

Interested deeply in the company, and, in fact, one of the principal capitalists in it, is a man who is one of the officials of the Bath Iron Works, at Bath, Me., but whose name is withheld at this time. It is said the formation of this new concern will mean the consolidation, or at least the working in harmony, of the Wetherill Engine Building Co., and the plate and steel industries of Chester, Pa.

any more resistance to headway than such as is due to a plain bilge keel—merely skin friction.

As soon, however, as the vessel rolls the pressure of the water itself, impinging upon the fins broadside on or at right angles to their length, springs all of the fins out and thus deflects the water aft, by reaction forcing the vessel ahead. It is an application of the turbine idea. He has tested the plan with a small boat on Lake Pontchartrain, where the waves are not powerful, and when running with the wind abeam, on which course it is obvious that no force whatever outside of the work of the fins could be driving the boat ahead, the speed was about three miles an hour. The fact that a vessel equipped with this apparatus may be headed in any direction, irrespective of the direction of the wind, makes it particularly advantageous, in Capt. Watters' opinion, for a vessel so equipped will travel directly against the wind and thus may be worked off a lee shore—where nine-tenths or more of all sailing ships come to grief.

MONTHLY SHIPBUILDING RETURNS.

TREASURY DEPARTMENT,
OFFICE OF THE COMMISSIOMER OF NAVIGATION,
WASHINGTON, D. C., May 31, 1901.

The Bureau of Navigation reports 143 vessels of 49,657 gross tons were built in the United States and officially numbered during the month of May, 1901, as follows:

	WOOD.				STEEL.				TOTAL.	
	SAIL.		STEAM		SAIL.		STEAM.			
	No	Gross.	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic and Gulf	53	4,775	22	1,053	2	308	11	18,505	88	24,641
Pacific	5	2,618	14	1,750	.....	.....	1	1,554	20	5,922
Great Lakes	1	8	7	703	.....	.....	8	17,403	16	18,114
Western Rivers	7	137	12	843	.....	.....	.....	.....	19	980
Total	66	7,538	55	4,349	2	308	20	37,462	143	49,657

The largest steel steam vessels included in these figures are:

NAME.	GROSS TONS.	WHERE BUILT.	OWNER.
El Valle	4,605	Newport News, Va.	Southern Pacific Co.
Lyra	4,417	Sparrows Point, Md.	Maryland Steel Co.
Monterey	4,702	Philadelphia, Pa.	N. Y. & Cuba Mail S. S. Co.
Apache	3,378	" "	Clyde S. S. Co.
Uranus	3,748	Wyandotte, Mich.	Detroit Ship Building Co.
Lake Shore	3,871	W. Bay City, Mich.	American Ship Bldg. Co.
Mauch Chunk	4,499	Buffalo, N. Y.	Buffalo Dry Dock Co.

The foregoing figures do not include craft without motive power of their own. From other sources than construction 2 vessels of ——— gross tons were added to the merchant fleet, the principal ones being:

RIG.	NAME.	GROSS TONS.	WHY OFFICIALLY NUMBERED.
Steamship	Balclutha	1689 (?)	Act Congress.
Barkentine	J. C. Pfluger.	1062	" "

Built May, 1900, 46,534.

ELEVEN MONTHS' SHIPBUILDING RETURNS.

The Bureau of Navigation reports 1,024 vessels of 359,789 gross tons were built in the United States and officially numbered during eleven months ending May 31, 1901, as follows:

	WOOD.				STEEL				TOTAL.	
	SAIL.		STEAM.		SAIL		STEAM.			
	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic and Gulf	414	69,001	175	10,314	9	10,320	42	80,250	640	169,885
Pacific	50	23 991	79	10,044	.....	.....	6	7,607	135	41,642
Great Lakes	6	116	40	4,824	5	11,236	42	121,757	93	137,933
Western Rivers	57	1,054	98	8,713	.....	.....	1	562	156	10,329
Total	527	94,162	392	33,895	14	21,556	91	210,176	1,024	359,789

During corresponding eleven months, ended May 31, 1900, sail and steam vessels of 264,929 gross tons were built and officially numbered.

A NONSUCH AGAIN.

We are this week told by one of our valued exchanges that, for years engineers have bemoaned the great loss of physical energy the ocean's waves and currents have presented, and many have been the efforts to so control them as to make them subservient to the uses of mankind. At last Capt. John S. Watters, a graduate of the naval academy at Annapolis, thinks he has solved the problem. Capt. Watters is at present a resident of New Orleans, and claims that his invention can be applied to any vessel with little expense. He would substitute for the solid bilge keel one which would contain square apertures, and in each aperture firmly secure by its forward end a fin made of laminated spring material, preferably steel on a steel ship and brass on a wooden or coppered vessel. These fins fill up the apertures almost completely, and when the ship is steady offer very little, if

ELECTRICITY FOR CANAL TRANSPORTATION.

An Ohio canal proposes to do away entirely with the old mule system, and substitute an electric system. Small electric locomotives or haulers will be operated along tracks that are constructed along the tow-path. With the electric system it is expected to tow from 1 to 6 canal boats, requiring two men only for the entire fleet. At the present time it takes several days for a boat to pass from Toledo to Cincinnati, whereas, it is estimated that, by an electric system, they can be propelled that distance in twenty-four hours.

"MANNING'S Yacht Register" for 1901 has been issued. Part first, as usual, contains a list of the recognized yacht clubs of the United States and British provinces, and a list of officers and addresses of the secretaries of the clubs, names of yachts, dimensions, etc.

RESTORATION OF AN ENGINEERS' CANCELLED LICENSE.

APPEAL TO THE SUPERVISING INSPECTOR—DECISION OF LOCAL INSPECTORS MODIFIED—A THREE MONTHS' SUSPENSION IN PLACE OF A TOTAL REVOCATION OF LICENSE.

STEAMBOAT INSPECTION SERVICE,
OFFICE OF SUPERVISING-INSPECTOR FIRST DISTRICT,
PORT OF SAN FRANCISCO, CAL., May 13th, 1901.

(CONTINUED FROM ISSUE MAY 30.)

If it be true that Captain Ward gave Captain Jordan directions to "Let her go," during the fog, where, at that time, the ship's position was known, and where she could again have safely anchored, he must have done so in the full belief that the pilot's superior knowledge as to the waters thereabout would enable him at that time, and under the existing conditions, to take the ship safely through the Golden Gate—a distance of three or four miles, even though it was foggy and dark. Jordan was then, and had been from the time he boarded the ship the previous day, rightfully in charge of the navigation of the ship; hence, was not obliged to obey the orders of Captain Ward, who could have relieved him, if he chose, and taken charge of the navigation of the vessel if he desired to take so grave a responsibility, but he did not do it; therefore, in my judgment, when the pilot proceeded, without remonstrance, to leave a safe anchorage to enter the harbor during a fog and darkness, he did so on his own responsibility. The tide was half ebb, running three miles per hour when the ship left her anchorage, and must have gradually increased to five or six miles between Fort and Lime Points, owing to the narrowing of the channel and the then heavy freshets in the rivers. According to the pilot the ebb tide on that occasion and on the next day ran across from Point Cavallo about a S. by W. course toward Fort Point. The ebb tide does undoubtedly run across the channel there, at times 15°, but the question in my mind is: was it that that cut the ship to the southward and on to the reef or was it the courses steered by Pilot Jordan as testified to by Mr. Coghlan? At all events the pilot was in no way justified in leaving a safe anchorage as he did, and penetrating a dense fog during the prevailing darkness of night.

Therefore, with all due respect to the Pilot Commission which acquitted him, I am of the opinion that to the unskillfulness of the pilot may be attributed that disaster. Shipmasters frequently bring their ships safely through the Golden Gate under similar conditions, and are applauded for it by their passengers, but it is a dangerous proceeding, especially so in a large vessel like the City of Rio de Janeiro.

Second Assistant Engineer Brady, in charge of the engineers' watch after four o'clock, was just as competent to perform his duty on that occasion as he had been during any of the innumerable watches he had charge of during two or three years' service on the City of Rio de Janeiro. He was undoubtedly prepared to increase or diminish the speed of that vessel at the will of the pilot, who testified that the ship had made her estimated distance at the time she struck, but she was about half a mile to the southward of her anticipated position when she received her fatal wounds. Brady had ample notice to prepare for going ahead and announced his readiness for doing so before the anchor was lifted. Assuming that at first his fires were a little "green," they could not remain so for more than ten of the fifty minutes that elapsed between the time the ship started ahead and the time she struck.

Therefore, he undoubtedly had ample steam to proceed, as he did, at half speed as directed from the bridge.

The appellant, Herlihy, when giving his testimony, showed that he had been well coached, and evaded many of the pertinent questions put to him by the Court as to his conduct on that occasion, stating what he was accustomed to do on leaving and entering twenty-four other ports on the voyage, and contending that the off watches were not required in the engine room at their stations until they got the "stand-by" signal from the bridge when the ship was about to anchor.

He testified that he was awakened by the moving of the engines when they were set in motion about the time the anchor was being hove up, and he then got out of bed, where he had apparently been for five hours between blankets, and in his pajamas, instead of lying down in his clothing, to be ready to enter the engine room at a moment's notice.

After getting up, he went out on the hurricane deck, and saw that it was very dark and thick, and returned to his room and opened the door leading into the engine room and

looked down below some thirty feet, and saw assistant engineer Brady and his attendant near the reversing engine, which, at that distance, satisfied him that everything was all right throughout below, which was an inspection at long range.

He continued walking to and fro in his room, occasionally taking a look out across the deck into the fog and down into the engine room, all the time half dressed with a service jacket over his pajamas, until the ship struck.

He then seemed to realize the fact that his place was below, where he should have been all the time during the previous hour. Before retiring for the night, he left no orders to be called, or to have his assistant engineers and others of the off-watches called when the ship got under way; nor did he give orders to call those people after he got up, which he could easily have done by communicating with Mr. Brady through a speaking tube leading from his room down to the working platform, where every chief engineer of a steamer of the size of the "City of Rio de Janeiro" knows and feels it is his duty to be on such occasions.

Had he and all his assistants then been at their posts, where the printed orders of General Manager Schwerin positively required them to be, the water-tight door on the bulkhead between the fireroom and the coal-bunker could have been sooner closed, and also the hinged door at the mouth of the tunnel between the engine and boiler rooms could possibly, with more assistance, have been closed in the earlier stage of the water, and without, as he states, endangering the lives of the people in the fireroom, who, unquestionably, at once ran up the fireroom ladder.

The closing of that door might have kept out of the engine room and away from the dynamo for a longer time the water that finally submerged it, and put out the lights about the ship, which was left in darkness to the discomfort of everybody on the ship a few minutes before she sunk. Possibly the extinction of the lights at that time caused the loss of the lives of some of the people who were obliged to grope about in the darkness thereafter until the ship struck.

The immediate starting of the pumps and the opening of the bilge suction to the circulating pump by the appellant's direction after he got down in the engine room was a commendable act, but their efforts to control so much water as he states was passing from the boiler-room to the engine-room, against which the hinged door could not be closed, offered but little relief.

After ordering his forces from the engine-room, where the water was fast rising, he directed his engineers, water-tenders, and oilers, and the No. 1 firemen, to start the fire in the donkey boiler for use in emergencies. That was a duty that could have been performed by one or two men. He, at that time, thought, and doubtless his assistants also thought, that, until the moment of her disappearance the ship was on the bottom, as he testified that he did not hear any signal to take to the boats. He proceeded from the donkey boiler to his room on the deck above to dress himself, leaving his people standing down about said donkey boiler-room on the starboard side of the ship without instructions, because, as he states, there was more deck-room thereabout than elsewhere, which seems absurd.

I find on the blue-print of the deck plans of the ship that there was a gangway near by, by which some of those people may have subsequently escaped to the hurricane deck, possibly some of them to have been carried down by the awnings when the ship began to roll well over on her starboard beam, as she appears to have done during the few minutes that elapsed before her final disappearance, as testified to by the pilot, who walked on her starboard side.

It is true, as argued by the appellant's attorney, that Herlihy did not run the ship ashore, but his argument "that the time for summoning the engineers to the engine-room had not arrived at the time the ship struck," fails to convert me to such views.

The unwritten law, as properly stated by the lower court in the appellant's case, requires the presence of the chief engineer and his assistants down in the engine-room proper during the time that a steamer of any considerable magnitude is entering or leaving port; that was too well understood by the appellant to admit of argument.

His negligence and inattention to duty, in not being down on the working platform, and having his assistants there, after the anchor was weighed on that perilous occasion, cannot be lightly passed over; but he is entitled to the benefit of all doubts as to what might have been done down there.

His friends have solicited for him a modification of the penalty imposed by the lower court, giving as a reason, his long and faithful service, his partial poverty, and his large family. Some of his friends suggest that Boiler Inspector Bulger was prejudiced against him, which leads me to remark that Mr. Bulger is a painstaking and efficient officer, and I believe incapable of carrying his prejudice, if he had any, against the appellant, into court. It is significant that the testimony of the appellant before the lower court, which presented some damaging statements against himself, was not admitted by him as a part of the evidence in this case.

However, I believe that the ends of justice will be served if the penalty imposed by the lower court be modified from a revocation of the appellant's license as chief engineer of ocean steam vessels to a suspension of said license for the period of three months from March 22nd 1901.

Therefore, the local board is hereby directed to issue to the appellant, P. H. Herlihy, a certificate of his lost license upon his making on or after June 22nd, 1901, the required affidavit of loss.

JOHN BERMINGHAM,
Supervising-Inspector, First District.

STATISTICAL REPORT OF LAKE COMMERCE.

THROUGH CANALS AT SAULT STE. MARIE, MICHIGAN AND ONTARIO, FOR THE MONTH OF MAY, 1901.

EAST BOUND.

Articles.	U. S. Canal.	Canadian Canal.	Total.
Copper, net tons	7,569	1,427	8,996
Grain, bushels	2,353,928	458,000	2,811,928
Building stone, net tons	1,990	1,430	3,420
Flour, barrels	858,753	62,640	921,393
Iron ore, net tons	1,121,719	50,813	1,172,532
Iron, pig, net tons	1,064	1,625	2,689
Lumber, M. ft. B. M	87,742	50	87,792
Silver ore, net tons	....	....	....
Wheat, bushels	4,716,265	1,243,277	5 959 542
Genl. Mdse., net tons	3 481	597	4.078
Passengers, number	646	2,018	2,664

WEST BOUND.

Coal, hard, net tons	104,568	2,600	107,168
Coal, soft, net tons	338,108	21,978	360,086
Flour, barrels	....	....	....
Grain, bushels	....	....	....
Manf'd iron, net tons	5,645	2,297	7,942
Salt, barrels	98,366	480	98,846
Genl. Mdse., net tons	52,224	9,955	62,179
Passengers, number	1,037	2,305	3,342
Freight:			
East bound, net tons	1,580,149	113,152	1,693,301
West bound, net tons	515,300	36 899	552,199
Total freight, net tons	2,095,449	150,051	2,245,500
Vessel passages, number	1,559	443	1,999
Reg'd tonnage, net tons	1,905,226	165,170	2,070,396

Compiled at St. Mary's Falls canal, Michigan, under direction of Lieutenant Colonel G. J. Lydecker, Corps of Engineers, U. S. A. Joseph Ripley, Assistant Engineer and General Superintendent.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT.
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT,
DETROIT, MICH., June 1, 1901.

ST. MARY'S RIVER.—MICHIGAN.—Notice is hereby given that the pile structure of the Brush Point Beacon Light No. 280, List of Lights and Fog-Signals Northern Lakes and Rivers, 1901, has been reconstructed and the light relighted on May 31, 1901.

LAKE HURON, MICH.—In accordance with Light-House Board Notice to Mariners No. 36, of 1901, the following-named gas buoys have been established, viz.:

Gravelly Point Shoal Gas Buoy No. 4, the position of which has been moved one-half mile to the the southward to mark the southerly edge of a detached eighteen (18) foot shoal.

Tawas Point Gas Buoy No. 6.

North Point Gas Buoy No. 10.

By order of the Light-House Board:

J. C. WILSON, Commander, U. S. N.,
Inspector 11th District.

THERE is a practical certainty that France will grant a subsidy to the proposed direct steamship line between France and Canada. This subsidy will be similar to the one voted by the Canadian Parliament.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Shipping—Injury to Cargo—Burden of Proof—Where a charter party and a bill of lading contain exceptions in behalf of the vessel, or breakage and leakage, and of dangers of the sea, and the cargo owner maintaining that the true cause of injury to the cargo was improper stowage, the burden of maintaining this proposition rests on the cargo owner. Crowell vs. Union Oil Co., 107 Fed. Rep. (U. S.) 302.

Exceptions in Bills of Lading.—A provision of a bill of lading that the ship is not to be answerable for loss through any "latent defect in the machinery or hull not resulting from want of due negligence by the owners," does not cover a condition of unseaworthiness existing at the commencement of the voyage, but applies only to a state of unseaworthiness arising during the voyage. The Aggi, 107 Fed. Rep. (U. S.) 300.

Shipping—Cargo Damage—Seaworthiness.—A cargo of sugar was damaged on a voyage from Java to Boston, by sea water, which entered around loosened bolts securing in places a wooden scroll work under the ship's figurehead, and extending some feet from the prow on either side of the vessel. These bolts extended through the ship's plates, being fastened by nuts on the inside, and were in such position that water entering through the holes would readily flow into the fore peak, where the sugar damaged was stowed. The action of the seas upon the scroll work, especially in rough weather and when the ship was heavily laden, would naturally tend to gradually loosen the nuts on such bolts. The bolts had not been inspected for two years, and there was no evidence showing whether or not the nuts were loose at the beginning of the voyage, except the testimony of the officers that there was no leakage on the previous voyage. On the voyage the ship was heavily laden, and encountered some heavy weather, but not more than should have reasonably been anticipated. Held, that if the bolts were loose at the inception of the voyage, the ship was in that respect unseaworthy, from the consequence of which the owners were not relieved from liability by the provisions of the Harter act, and that the evidence was not sufficient to overcome the presumption of fault which arises against the carrier when goods are damaged during their transportation. The Aggi, 107 Fed. Rep. (U. S.) 300.

Unseaworthiness—Frozen Water Pipes.—A water service pipe on the upper deck of a steamship had a branch passing down through the deck, across the vessel, and terminating in a brass cap for the attachment of a hose for washing the midship deck. The space where the pipe terminated was not originally intended for cargo, but had been inclosed, and was sometimes used for that purpose. There was no valve by which such branch pipe could be cut off from the main pipe on the upper deck. While the ship was loading for a voyage in New York, there was severe cold weather, during which the hatch into the compartment where the pipe terminated was open, and the compartment was filled with cargo, and the hatch battened down, so that the compartment was not readily accessible. During the time of loading, the water in the branch pipe froze, and the cap burst, and in using the main pipe during the voyage water ran through the branch pipe into the compartment, and damaged the cargo, before it was discovered. Held, that as to such compartment the vessel was not seaworthy on sailing, nor was due dilligence used to make her so, within the provisions of the Harter act or similar provisions in the bills of lading; that there was a lack of suitable care, also, in loading the cargo in the compartment with such a pipe not suitably protected against frost, and without inspection as to its condition, which could have been readily discovered and easily remedied, so as to prevent exemption of the owners from liability under other provisions of the bills of lading. The Catania, 107 Fed. Rep. (U. S.) 152.

Fog—Steamer at Fault—Lookout.—A schooner, sailing close-hauled at the speed of about three knots an hour, came into collision with a steamer, about 20 miles off Fire Island, in a thick fog, about 2 p. m. When the fog set in about half an hour before collision, the steamer slackened to half speed, which was about seven knots, and the only lookout prior to the collision was the first lieutenant, who stood on the bridge. The lieutenant heard the schooner's fog horn, and, looking in the direction from whence the sound came, saw the schooner's topmast on the starboard side, whereupon, at his signal, the steamer was at once reversed full speed, and three blasts of the whistle blown. The distance between the schooner and the steamer, when first seen, was about 80 meters. The schooner executed no maneuver after hearing the whistles of the steamer, and the schooner's master testified that the steamer was about 600 feet away when he first saw her. The seamen of the steamer, located forward of the bridge, did not see the schooner prior to the reversing of her engines, but were engaged in other work, and were not on the lookout. Held, that the steamer was at fault for the collision in failing to maintain a proper lookout in the crow's nest or forward of the bridge. The schooner was also at fault for failure to attempt to avert the collision by luffing as soon as the steamer's signals were heard, in violation of the international rules (Act Aug. 19, 1890; Act May 28, 1894), declaring that when, in consequence of thick weather, the vessel entitled to hold her course finds herself so close that a collision cannot be avoided by the action of the giving-way vessel alone, she shall take such action as will best aid to avert collision. The Patria, 107 Fed. Rep. (U. S.) 157.

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CLEVELAND, O., JUNE 6, 1901.

UNITED STATES AND CANADA COASTING LAWS.

It is a matter for congratulation that the commerce of the lakes in so far as the United States and Canadian coasting laws are concerned is carried on without the slightest friction in any particular direction. As regards the bearing of an international commercial courtesy, it is a pleasure to note that there is a general feeling and expression of amity which goes far to foster agreeable relations and facilitate the essentially practical part of this interlake commerce as evidenced in the ordinary business transactions of the larger freight and passenger lines.

A Dominion cabinet officer in a recent discussion on matters connected with water transportation with the Montreal Harbor Commissioners and representatives of Montreal's shipping and trade interests, asked whether they had considered that there were not enough Canadian boats to carry any increase of traffic, and whether they favored allowing American vessels to do the business. The Toronto Globe in commenting upon the foregoing inquiry says: "We quite see that the question Mr. Tarte raises has more than one side, but when they are all considered the answer, we should say, must be that while the American coasting laws are in their present state we must maintain ours. If we did otherwise we would virtually sign the death warrant of our inland marine. It is small now and it would never grow larger. The advantage which American vessels would have in being free to engage on both sides of the lakes, while our ship masters were confined to this side, would inevitable clear us off the lakes." Which is a very pertinent rendition of the facts, furthermore, the Globe goes on to say:

"As matters are now, a Canadian vessel has an advantage in carrying on the through trade to Montreal. It can carry cargo from either a Canadian port, or an American port, while an American vessel can only carry from an American port to a Canadian port. This happens because the eastern terminus of the route is Canadian. Until the value of the St. Lawrence route is made manifest Canadian capital may not be readily found to embark in the building of the larger class of vessels which can now be used in the canals, but that state of affairs will not last very long. With a monopoly of the Canadian trade and an equal chance at the international trade the prospect should be encouraging enough to stimulate the creation of a Canadian fleet, a fleet not only large enough to handle the traffic coming from the west to Fort William, but with vessels to spare to engage in the international trade. When the Americans abandon their coasting laws it will be time enough for us to abandon ours."

There can be no question regarding the logical views advanced by the Globe in support of a continuation of the laws as at present observed in the interlake coasting trade. At the same time, we may say, that until such times as the Canadian lake marine is in a position to take care of the prospective St. Lawrence river, canal and gulf trade, it might be advisable to suspend that portion of the coasting laws relating to the clearances of American bottoms from and to Canadian ports. The advantages of a temporary suspension would be all in favor of Canada even without seeking reciprocal privileges and as the Globe says, the question has certainly more than one side to it.

THE LAKE ERIE STEAMBOAT RACE.

The test of speed in the trial race of Tuesday last, between the side-wheel steamers City of Erie and the Tashmoo, (equipment particulars of which were given in our issue of May 30,) over a course of nearly one hundred miles along the south shore of Lake Erie, resulted in a practical tie; but, with the actual advantage of a few lengths in favor of the larger boat.

The question arises, what, if anything, has been learned from this interesting object lesson besides the satisfaction experienced by those who had individual leanings regarding the speed supremacy of either class of boats, for, let it be understood that the late competitors were by no means built for the same trade or service.

The most talented and conscientious experts on the lakes could see no reason for rivalry between the light draft, speedy river steamer and the heavier, well-powered lake craft. In the form of hulls, equipment, engine and boiler power there was not a fighting chance for even figuring a superiority, nor does any exist. The Tashmoo is the speediest lake-built river steamer that ever smelled fresh water, and the same may be said of the passenger and cargo steamer City of Erie, in her lake service. Both vessels were in excellent trim, and were steered as if they had been laid on railroad tracks, a speed test was the sole object in view, and as such, the craft are equal in smooth water of a certain depth.

Outside then of a pride of ownership, or the mental or other influences engendered by local contact, etc., it has been amply demonstrated that the depth of water ruled these nineteen-knot river and lake competitors, so that each are the best adapted for their own particular service and for which they were designed, that is to say, given smooth water and both vessels in likely trim under full speed, each can be made to alter or maintain their bearings according to the depth of water, and this speaks volumes for the skill of their talented designer, their engine builders and their practical handling.

The information to be gained by or from this recent experience is by no means new, it has simply been brought more locally prominent and perhaps turned attention to the vertical wake, if we may so term it, as opposed, or in harmony, with the surface or horizontal wake which onlookers are so prone to gaze at. Therefore, as we have said, the Tashmoo is the speediest shoal water craft, while the City of Erie excels on every other point which a vessel is called upon to bear or perform.

TRANSMOGRIFIED NAVAL TERMS.

It is quite according to the usual lake practice to have scows, dredges, tugs, yachts and all sorts of, what may be termed, miscellaneous tonnage placed "in commission," or if swinging to an anchor, or tied up to the dock for a few days, awaiting the owner's pleasure to sail or charter they are said to be "in ordinary." Both of these terms belong essentially to the naval arm of a country's service and are of national in lieu of commercial import; as a consequence, they are altogether misplaced when used in connection with the vessels comprising the mercantile marine of this or any other country, and more markedly so, perhaps, when it comes to a question of inland, or canal, river and lake tonnage.

There is a universal fitness in maritime phraseology as used in the naval and merchant service which, when misapplied, is simply rasping, if not altogether obnoxious to the ears of those who may be said to have crawled in at the hawse-pipes and worked their way aft, and doubly so to those who are practicing their profession by virtue of dropping through the cabin skylight and thereafter exercising an energetic, determined struggle of continued study to become masters of, or proficient in their chosen calling, and this more especially from the standpoint of the mercantile marine service as it differs from that of the navy.

In the intermediate service, employment or pastime covered by the word "yachting" a latitude of action and expression is evinced, allowable and generally accepted, even to the full limit of the stretch of courtesy, hence we have seamen, A. B.'s, if you wish, of a peculiarly limited grade, and yet thoroughly efficient and singularly adapted for the duties that they are called upon to perform, the peers of any class of men extant and to be replaced only with the utmost difficulty, after a course of training, etc. So also do we have in this particular calling titles of prefixes, sanctioned by custom, whether honorary or otherwise, such as fleet captain, commodore, vice, rear and acting commodores, each with his own special flag, so as to distinguish the rank wherever the bunting is flown or exhibited. All this, we have said, is allowable and permissible in yachting circles, partaking, as it does, of a semi-naval, elevated disciplinary and merchant service character in so far as the practical handling of the fancy tonnage is exercised by the chiefs of the fleet when the bottoms are gathered in an immediate vicinity, in the form of a squadron under convoy, and this as it differs from the individual action of vessels in the merchant service, who each and severally go their own way irrespective of, or in the absence of any superior or controlling authority to supervise their path to the point objective.

However, to come back to our subject of transmogrified naval terms, there is a notion in force at the present that the erstwhile master of a dugout or anything, on conducting a successful business ashore, should be dubbed by some other and more honorable (?) prefix than captain (a word which is only used by courtesy as regards service in the merchant marine) so, we transmogrify the expressive and distinct term of shipmaster to captain, and by a stretch of the rules of courtesy, endorsed by custom, dub a man who has been pronounced master of his business as captain, and now it is desired to go even a step wider from the mark by naming a master in actual service a commander, while, as we have said, those who have no longer a command, may be placed in the category of past admirals, all of which is the veriest possible rot and would stand frowning down or being sat upon, for, if it's titles, affixes or prefixes we are after, there is no law extant to prevent any one, at any time, using the whole alphabetical code to their signatures, providing that they harm no person, place or thing by so doing.

Commodore, the euphonious prefix that tinkles charmingly on the ears of yachtsmen in particular, is an epithet corrupted from the Spanish commendator, and, according to naval usage was the senior officer in command of a detached squadron. A captain finding five or six ships assembled, was formerly permitted to hoist his pennant and command as commodore; and a necessity arising for holding a court-martial, he ordered the said court to assemble. Again, where an admiral dies in command, the senior captain hoists a first-class broad pennant and appoints a captain, secretary and flag-lieutenant, fulfills the duties of a rear-admiral and wears the uniform. Commodores of the second-class have no captain or pennant-lieutenant. A commodore rates with brigadier-generals, according to dates of commission (being of full colonel's rank). He is next in command to a rear-admiral, but cannot hoist his broad pennant in the presence of an admiral, or superior captain, without permission, etc., all of which goes to show the irregularity in nautical parlance of calling the master of an ordinary cargo carrier, or, on his "swallowing the anchor," an admiral, or commodore, and, as a matter of honest opinion good American citizens are not absolutely struck on making popular a transmogrified Spanish epithet anyway.

The shipmaster in the merchant service when slated to remain ashore in the service of his ship-owning employer, is usually known as the overlooker, shore captain or ships' husband, as a rule he is the senior master in the employ, or in the exceptional case, a master who has been found particularly adapted for facilitating the transaction of a ship's business while she is in port. His principal duties are executive rather than commercial; he will see that the vessels in the fleet are kept in perfect order and condition from keel to truck (usually excluding the engine room department, which is under the direct supervision of the superintending or shore engineer); also that all subordinates are working in unison for the best interests of the owners as well as their own ships, in fact, his regular duties and practices are those of a responsible, trusted and qualified caretaker, whose every act of any importance is submitted to the owners for approval, or to their commercial representative acting as the general manager.

From the foregoing it may be judged that it is somewhat extravagant diction to make of a shore captain, overlooker or ships' husband a full-fledged commodore; moreover, it is traveling from the realms of reality to the confines of titled professional poppycock and assumptiveness, on lines, too, where such a departure is totally uncalled for and to serve no earthly or heavenly purpose.

AUSTRALIAN LIGHT-HOUSES.

Although the greater portion of the Australian coast is remarkably free from dangers to navigation, light-houses have been erected at every available point; hence the comparatively limited number of shipping disasters other than those occasioned by stormy weather. The whole of the New South Wales coast is efficiently lighted and still further improvements will be effected. Some of the lights are visible at a distance of 12 miles. The most important of the New South Wales light-houses is the Macquarie, at the entrance to Port Jackson, and which ranks as one of the largest and finest in the world. It is also the grandest example of electric lighting of which the southern hemisphere can boast. The structure was commenced on March 1, 1880, and the light in connection with it brought into operation on June 1, 1883. The old light-house, which the new one has replaced, was built in 1816, and was the first structure of the kind in Australasia. It is equally interesting, and also illustrative of the enterprise of the state, that the electric light was the first used for light-house purposes. The light is of the first order, sixteen-sided, dioptric, holo-photal revolving white light, of the system of Fresnell, showing a flash of eight seconds in every minute, and having a range of 25 miles seaward. It is, however, discernible for a considerably greater distance, owing to the luminosity produced in the atmosphere by the electric beam before the direct rays become visible. It was constructed under the supervision of Mr. Jas. N. Douglas, engineer to the Trinity Board, London. From that gentleman's report of his final inspection of the apparatus, together with a descriptive account by Dr. Hopkinson, the following extracts are taken.

"I can confidently state that the Macquarie light is at the present moment the most efficient in the world." Also, that he had "invented an improvement in oil and gas burners, by which a greater condensation of the focal light is effected than hitherto," which he had "placed at the disposal of Messrs. Chance Bros. for the Macquarie light, free of royalty, and consequently the gas and oil burners for use during clear weather have, with flames of 1½ inch diameter, an intensity of about 200 candles instead of 80 candles with the same diameter, as with the old type of burner originally intended. When these flames are at the focus, there is a consumption with the 16 candle gas of about 40 cubic feet per hour, and with good paraffin of about one pint per hour, and I estimate the mean intensity of the flashes from the apparatus at about 40,000 candles, or about five times the intensity of the flashes of the existing Macquarie light. With full power of the electric light at the focus, the mean intensity of the flashes in the direction of the sea horizon is not less than five or six millions of candles.

"By a simple arrangement the change from gas light to electric light at the focus, or the reverse, can be effected in ten seconds, and the flames of the oil lamp can be substituted for the gas or electric light in nearly the same space of time." The Macquarie light-house is intended only to illumine half the horizon; it is therefore possible to make use of the landward rays by means of a dioptric mirror. This was probably the first instance of the use of a dioptric mirror for an electric light. Special adjustment was needed to attain the result in a satisfactory manner. The whole apparatus is carried on a round pedestal, which offers the great advantage of enabling the keeper to enter without interfering with the rotation of the apparatus. Arrangements are made to burn either gas or paraffin oil, or to exhibit the electric light at full power or half power. When the electric light is in use there is always a second lamp in readiness for action. The practical result of the light-house has been to make the entrance to Sydney harbor perfectly safe, except during the most violent weather.

THE earlier that capitalists realize that the Welland canal and St. Lawrence system of canals are adapted only for the smaller class of lake tonnage, the fewer the hybrids that lake shipyards will be paid to turn out. If only the least economical type of lake carriers can use the largest canals, how then can such tonnage compete in the Atlantic trade? The Counselman fleet, known as the Northwestern Steamship Co., supposed to be built to form a regular line between Chicago, England and the Continent of Europe, are of the type mentioned. They are not vessels fit to enter the lake trade, are worse than failures as steam canal barges, and abortions so far as Atlantic traffic is concerned, what then, it may be asked, were they built for, and to what use can they eventually be put. Well! so far as we can see, they will only make handy little coasters to trade between shoal water ports. The fact is more pronounced now than ever before in lake history that, special tonnage is required for special trades and combination coaches don't go.

NEW TONNAGE.

Messrs. Mitchell & Co., Cleveland, have placed an order with the American Ship Building Co. this week for the construction of two 6,000-ton steel cargo steamers for delivery next spring. As the company have yards at all of the prominent lake ports it is not yet learned to which yard the new contract will be apportioned, but it is safe to surmise that the sister ships will be built at the same yard. This, the latest contract for high-classed steel tonnage may be considered as indicative of continued activity in lake shipbuilding as also in the advance of lake commerce, commensurate with the shipbuilding output of new tonnage.

DETROIT RIVER MAIL SERVICE.

In comparing the amount of work done by the marine department of the postoffice in May, 1901, with that done in the same month last year, Assistant Postmaster Mayworm reports a marked decrease. This is all to be attributed to the ice jam and the consequently late opening of navigation.

In May the marine service delivered to passing steamers 22,447 pieces and received from them 7,491.

They issued to them 69 money orders, amounting to $1,641 87. There were 2,002 passages in the port of Detroit in May.

The general receipts of the postoffice were $70,138.72. In 1900 they were $68,791.98, making an increase of $1,346.74.

ORE RECEIPTS AT ASHTABULA.

The ore receipts at Ashtabula for May were 223,725 tons as against 602,432 tons received in May, 1900, or only a little over one-third of the receipts of May last. The ice blockade and engineers' strike were largely responsible for the great slump. June starts off with docks crowded there being twenty vessels at Ashtabula Harbor on Tuesday loaded with ore.

If the rush continues June will break all previous records in ore receipts. There were 128,376 tons of coal shipped and 106 vessels arrived and 114 cleared in May.

SHIPMASTER VERSUS COMMODORE.

The title of "Captain" should from this time forward be discarded by people when addressing A. B. Wolvin. In addition to the title of vice president and general manager of the Pittsburg Steamship company, the title of "Commodore" has been conferred upon him. This we learn from the Duluth News-Tribune. The title is one which means more in his case than in that of any other living man who bears it today, for Mr. Wolvin is the commodore of the biggest fleet, both in point of number of ships and aggregate tonnage, that floats upon either fresh or salt waters of the globe. "Commodore" Wolvin is the title which the well known steamboat man must now get accustomed to, and those who know him best are aware that he has earned it. From cabin boy to manager and commodore of the biggest fleet in the world is a distinction that probably Mr. Wolvin would not exchange for many another proud position within the reach of human endeavor. The news of Mr. Wolvin's latest title was given to The News Tribune by James Gayley, first vice president of the United States Steel Company, yesterday.

The first official announcement of the title which W. J. Olcott will bear under the steel corporation's mining company was also given out by Mr. Gayley. He will be general superintendent of mines on the Mesaba range. This is in line with an unofficial announcement by The News-Tribune a short time ago.

LAKE ERIE LEVELS.—A CORRECTION.

CHIEF ENGINEER'S OFFICE,
DEPARTMENT OF MARINE AND FISHERIES
OTTAWA, CANADA, 4th June, 1900.

To The Editor of the Marine Record:

Sir: I have to thank you for drawing my attention to two items in your paper of the 23rd ultimo, purporting to give my conclusions, with reference to the level of Lake Erie.

I have merely to say that the statements I made have been to a certain extent colored by the imagination of the reporter. I did say that Lake Erie was lower, when I was on it last month, than in previous years, and I did say that if this lowering increased it would be necessary to adopt remedial measures, but I certainly did not commit myself to any prophecy of what would happen, because I have not the necessary data on which to base an accurate forecast.

Yours sincerely,
WM. P. ANDERSON, Chief Engineer.

IRON AND STEEL BOUNTIES IN CANADA.

The iron and steel bounties offered by the Dominion of Canada have grown to such proportions as to create much discussion, and there is a growing disposition to demand from Parliament a repeal of the law granting them.

In 1898–99 the iron bounties reached $280,109. Last year, according to the Auditor-General's report, the Dominion gave $312,774 as bounties on iron and steel, the distribution being as follows:

Radnor Forges, Three Rivers	$ 18,234
Deseronto Iron Company	27,026
Hamilton Blast Company	107,009
John McDougall & Co.	5,485
Nova Scotia Steel Company	137,522
Mineral Products Company	7,378
Ontario Rolling Mills	1,200
Hamilton Steel & Iron Company	8,920
Total bounties paid	$312,774

The bounty paid is $3 a ton on pig iron from Canadian ore and $2 on pig iron from foreign ore, $3 a ton on puddled bar from pig iron made in Canada, and $3 a ton for steel ingots made from Canadian pig iron.

The Dominion Iron & Steel Company, Limited, of Sidney, Cape Breton, Nova Scotia, in its offer of sale of $3,000,000 of 7 per cent. preferred stock, sets forth an es imate of the government bounty which will be received by that company for seven years. The company states that "if the production from the company's works be as estimated—300,000 tons of pig metal and 60,000 tons of steel blooms in 1901, and thereafter 400,000 tons of iron and steel per annum, made from foreign (Newfoundland) ore—the bounties to be received from the Canadian government" will be as follows:

1901	$ 870,000
1902	2,075,000
1903	1,850,000
1904	1,450,000
1905	1,000,000
1906	625,0 0
1907	225,000
Total	$8,095,000

The Cramp Ontario Steel Company, with a capital of $5,000,000, is a new enterprise located at Collingwood, Ontario. The bounties granted to such enterprises in the Province of Ontario by the Province and Dominion combined amount to $7 per ton of the product.

So many iron and steel plants are being started in the Dominion that it is feared that the bounties offered will shortly become a greater burden than the country can stand.

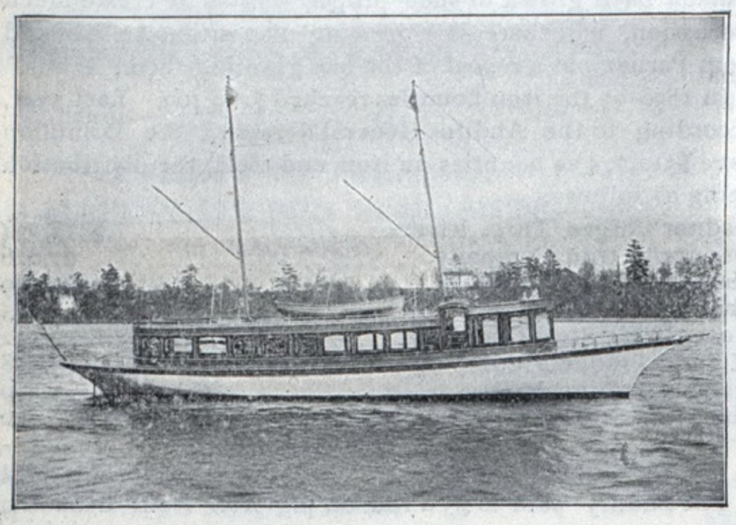
The United States Consul-General at Montreal, John L. Bittinger, states that in all the iron and steel plants now in operation, as well as in those projected, United States capital is dominant, and that with so large a bounty, abundant raw material and cheaper labor than in the United States, the iron and steel plants of Canada will have a considerable advantage over the plants in our country.

NOTES.

IN Brassey's Naval Annual for this year, Mr. John Leyland, expert among experts, states his belief that England will have a distinct superiority in first-class battle-ships over the Dual Alliance. But he adds that, "in view of the modernizing of the second-class battleships of France, the practical equality of numbers in the first two classes possessed by England on the one hand and France and Russia on the other, is not reassuring, and the need is urgent for pushing forward the ships in construction."

WE are in receipt of Beeson's Marine Directory of the Northwestern Lakes, published by Harvey C. Beeson, 308 Royal Insurance Bldg., Chicago, which is the 14th annual edition of the work, and what the publisher is pleased to term, the 20th century edition. It is larger than any former edition and more fully illustrated, and very careful work in its compilation is indicated throughout the volume. Eastern manufacturers seeking trade throughout the central west should find it of value as a book of reference. Its advertising patronage shows well for its influence.

THE Joseph Dixon Crucible Co., of Jersey City, N. J., has just issued a very handsome catalogue of seventy-seven pages, showing the various graphite productions of the company, with many illustrations, several of which show the graphite mines and mills of the company. The catalogue gives a great deal of information in regard to the mining and manipulating of graphite and the various uses for which it is used—from stove polish to lead pencils. It is the best known solid lubricant, and all users of machinery, light or heavy, should write the Dixon Crucible Co., for any desired instruction on the subject, which will be freely and promptly given.



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OWNER AND PRESIDENT OF THE NORTHERN STEAMSHIP CO.

Who is Mr. J. J. Hill? asks Henry Lomis Nelson in Harper's Weekly. He is not a dealer in general securities. He has never been inside the New York stock exchange. When he buys stocks and bonds it is for the purpose of gaining the ownership of a property which he desires to own and manage as a business enterprise and for the purpose of making money for himself and fellow-shareholders. To those who are associated with him in the railroad business he seems to be the greatest railroad manager of his times. He began life in the west, 45 years ago, as a clerk in a Mississippi river transportation business at St. Paul, and then went back into Canada, whence he came, and into service of the Hudson Bay Co. There he met Lord Strathcona, who had not quite earned his peerage, with whom he has been associated for 30 years.

Again he returned to Minnesota, and, at last, began the construction of the Manitoba railroad, which ran into the Red river wheat country. He was regarded as an intruder by the old Northern Pacific magnates, and he was not popular with them. But he kept on building and operating his own road until eventually it became the Great Northern railroad. It was built as a private enterprise. It is the only transcontinental road constructed without a dollar of government money. Its bonded debt is small. It has never missed paying a dividend. In the panic years, 1893, 1894, 1895, when railroad wrecks were tumbling all about, the Great Northern not only paid its dividends, but increased them.

Mr. Hill is a commanding personality who wins loyalty and devotion from his associates. He is possessed of a warm imagination, restrained by a thorough knowledge of details. He knows what his road cost, the cost of operation, the cost of wear and tear. Every dollar that his road earns belongs to the stockholders. No one connected with his road, officially makes money out of it from patents or any of the devices by which some railroads are bled. Mr. Hill knows thoroughly the country through which his road passes, its products, its capability, its people and their capacity. He knows also the promise of each season and his imagination walks into the future as sure-footed as it is permitted the imagination to do.

AMOUNT OF CEMENT USED IN CONCRETE.

Mr. Wm. Pierson Judson, Deputy State Engineer of New York, in answer to an inquiry as to the amount of cement used in concrete in the new specifications for the New York state canals, says that the margin of 1 to 2 per cent. in matrix in excess of the measured voids of the total mass of the loose aggregate is, as it was intended to be, a maximum amount of mortar, and that the result usually shows a slight excess of matrix after filling the voids.

WORTH REPEATING.

This from the MARINE RECORD, Cleveland, is true as preaching: "No maritime power can ever make a more judicious expenditure than that voted for the up-keep of her gates of commerce, and, it may be said, that we furnished but a sorry burlesque in the final handling of the late River and Harbor Bill in the closing hours of the last Congress."—New York Marine Journal.

CONSOLIDATION OF COAL COMPANIES.

In these days of commercial amalgamations and industrial consolidations it was not to be expected that the larger coal and fueling firms would escape the touch of the magical, get-together wand, which has been hovering over Europe, Africa and America.

The most recent firms to embrace the latter conditions are made known to us by circular letter in the following terms under date of June 1.

"We beg leave to announce that we have this day sold to the Milwaukee-Western Fuel Co. (whose circular we enclose) our plants, business and good will, and as we are financially interested in the new company, we earnestly request a continuance to them of your valued patronage. The new company expect to retain the services of our salesmen, and your interests will be looked after with the same care and attention as in the past.

While we feel a natural regret in giving up the old firm name, we wish all our friends to feel and know that it is a change in name only. We have made this change after long and careful consideration, and only because we believe the economies effected under the new arrangement, and the greater and better facilities we will have for serving you, will be of great advantage, both to you and to ourselves.

With sincere thanks for your many evidences of friendship to us in the past, we remain,

Very truly yours,

B. UHRIG FUEL CO."

The Milwaukee-Western Fuel Co., having this day purchased the plants, business and good will of the following firms, B. Uhrig Fuel Co., H. M. Benjamin Coal Co., The R. P. Elmore Co., F. R. Buell Coal Co., George S. Eastman, begs leave to announce that its main office will be at Nos. 2 to 12 Grand Avenue, Milwaukee. That it has eleven docks with unexcelled receiving and shipping facilities, with storage room for over 500,000 tons of coal, with docks located on all of the railroad lines entering Milwaukee, and that it is prepared to quote you prices for the standard grades of anthracite and bituminous coals.

We will also carry a line of high-grade imported and domestic Portland cements, also fire brick and clay.

We represent the following white ash coals:

D. L. & W. R. R. Co's Scranton, The Delaware & Hudson Co.'s Lackawanna, and W. L. Scott Co.'s Lackawanna; also Castner, Curran & Bullitt's celebrated Pocahontas smokeless coal.

We can always promise you prompt service and quick shipment, and we hope to be favored with a share of your patronage. We remain,

Very sincerely yours,

MILWAUKEE-WESTERN FUEL CO.

WHEN the steamship Northwestern, from Chicago to Hamburg, with a miscellaneous cargo, passed out of the Gulf of St. Lawrence into blue water, she was six weeks out from her port of clearance. However, only ten days of this was actual running time, the remainder having been spent in the ice jam at the mouth of the St. Clair river, in dock at Detroit repairing damages due to the ice, aground in the St. Lawrence and in dock at Montreal repairing damages resulting from grounding. She was the first vessel of the new line, and it was but natural that vicissitudes should beset her, even if we discard the prevalent Chicago opinion that she was "hoodooed" by carrying a large consignment of the printed matter of the Rev. John Alexander Dowie, one of Chicago's most enterprising citizens.

TREASURY DECISION.

REPAIRS TO AMERICAN VESSELS IN FOREIGN PORTS.

When an American vessel engaged in the foreign and coasting trade on the northern, northeastern, and northwestern frontiers of the United States is docked in a Canadian port and any repairs made thereto, the cost of docking is dutiable as an expense incident to such repairs.

TREASURY DEPARTMENT, May 22, 1901.

Gentlemen: The Department is in receipt of your letter of the 10th instant, in which you asked to be informed whether duty is chargeable on the amount paid for docking American steamers in Canadian ports.

You state that you understand that all alterations and repairs are dutiable, but you would like to know whether the amount paid on such steamer for the mere docking itself is dutiable.

In reply, I have to inform you that section 3114, Revised Statutes, provides for the payment of an ad valorem duty of 50 per cent on the cost "or the expenses of repairs" made in a foreign country upon vessels enrolled and licensed under the laws of the United States to engage in the foreign and coasting trade on the northern, northeastern, and northwestern frontiers of the United States, or a vessel intended to be employed in such trade.

The language of the statute is considered to be sufficiently comprehensive to include all expenses incident to such repairs. Therefore, if such vessels are docked and any alterations or repairs whatsoever are made thereto, the cost of docking would be included in the amount upon which the aforesaid duty is leviable.

Respectfully,

O. L. SPAULDING, Acting Secretary,

Thousand Island Steamboat Co., Ltd., Kingston, Ontario, Canada.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	3,3 2,000	808,000	1,007,000	73,000	307,000
" afloat	.....	.....	.....	.....	.....
Chicago	6,640,000	6,613,000	3,758,000	191,000	134,000
" afloat	.....	.....	.....	.....	.....
Detroit	203,000	146,000	.....	4,000	2,000
Duluth	5,463,000	3,203,000	1,055,000	273,000	44,000
" afloat	.....	.....	.....	.....	.....
Fort William, Ont.	1,505,000	.....	.....	.....	.....
Milwaukee	455,000	686,000	441,000	20,000	16,000
" afloat	.....	.....	.....	.....	.....
Port Arthur, Ont.	131,000	.....	.....	.....	.....
Toledo	199,000	607,000	169,000	4,000	1,000
Toronto	54,000		1 000	.....	67,000
On Canals	631,000	189,0 0	99,000	58,000	1 ,000
On Lakes	1,543,000	1,271,000	124,000	.....	.....
On Miss. River	129,000	.....	.....	.....	.....
Grand Total	63 932,000	16,413,000	11,218,000	743,000	822,000
Corresponding Date, 1899	44 704,000	12,378,000	7,043,000	1,051,000	810,000
Increase	.....	1,093,000	780,000	44,000	.....
Decrease	3,132,000	.....	.....	.....	239,000

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

TEACHER—Of course you understand the difference between liking and loving? Pupil—Yes; miss; I like my father and mother, but I love apple pie.—Boston-Globe.

THE SPONGE FISHERIES.

Sponge fishing, says a recent Belgian commercial report, is a Cuban industry which has developed very rapidly on the southern coast of Havana Province. About fifteen years ago a Greek sailor, who was the first to see the advantages which could be reaped from sponge fishing, began the development of this industry. To-day the exports of sponges from Batabanó amount to $1,000,000 a year. Those who are engaged in this industry are Spaniards from the Balearic Islands, Greeks, and a few Cubans. The schooners which sail along the coast looking for sponges generally remain out twenty days. The crews are not paid any wages, but they are allowed a certain per cent. of the sponges, which represent on an average 50 pesos for each man on each trip.

Sponge fishing, which is very easy, takes place along the coast, and preferably around the numerous islets near the coast. Owing to the shallowness and clearness of the water the fishermen are able to gather the sponges by means of long forked sticks call pincharras.

The finest sponges, which are white and very compact, are found around Batabano. In other parts of the island the sponges are generally red backed and spoil very rapidly. The Cuban fishermen have given the name of machos to the sponges of little value, while the best and finest ones are called hembras. The small sponges, not larger than the fist, are called redobles. The ordinary hembras, of from 10 to 20 centimeters in diameter, sell for 3, 3½ and 4 pesos a dozen. Those measureing 25 centimeters are worth 6 and 7 pesos. Larger sponges sell by the piece. The redobles are only worth from 40 to 50 centavos a dozen.

In Batabano, there are houses whose only business consists in buying sponges from the fishermen and exporting them to France and the United States.

GEOLOGICAL SURVEYS.

The plan of operations for the geological surveys to be made in the next fiscal year was announced on April 25, 1901. An important feature of the work will be an investigation in co-operation with the Coast and Geodetic Survey of certain unmarked parts of the northwest boundary between the United States and the Dominion of Canada. This line will be resurveyed and temporarily marked by iron posts in certain localities. It is planned to make a reconnaisance of the whole line from the summit of the Rocky Mountains westward. Parties will be detailed to co-operate in topographical surveys of the states of Maine, New York, Pennsylvania, Ohio, West Virginia and North Carolina. Special investigations will be made in the Rocky Mountains in the state of Montana. Investigations are planned of the glass and coal working industries, as well as of the cement works of the country. The gas wells of the state of Louisiana will be fully examined. Other investigations will include the lead and zinc deposits in the state of Missouri, the gold deposits in the state of Georgia, and the Devonian and carboniferous strata in the state of New York, with reference to coal, petroleum, gas, glass, etc.

ACETYLENE GAS FOR LIGHT-HOUSES.

Consul-General Guenther, under date of Frankfort, March 4, 1901, reports that at the light-house of Altenbruch, acetylene gas has been experimented with, as the strongest petroleum light proved too weak for this station. It is stated in German papers that the results were entirely satisfactory, and it is expected that acetylene gas will now be used extensively for light-houses.

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the Sun's setting. The bearing may be taken when the Sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
June 5	E. 31° N.	= N. 5¼ E.	= N. E. by E. ¼ E.
June 15	E. 32° N.	= N. 5⅛ E.	= N. E. by E. ⅛ E.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
June 5	E. 32° N	= N. 5⅛ E.	= N. E by E. ⅛ E.
June 15	E. 33° N.	= N. 5 E.	= N. E. by E.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
June 5	E. 33° N.	= N. 5⅛ E.	= N. E. by E. ⅛ E.
June 15	E. 34° N.	= N. 5 E.	= N. E. by E.

LAKE SUPERIOR, LAT. 48° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
June 5	E. 35° N.	= N. 4⅞ E.	= N. E. ⅞ E.
June 15	E. 36° N.	= N. 4¾ E.	= N. E. ¾ E.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

FROM CHICAGO TO HAMBURG.

The cable announced the arrival of the steamer Northman at Hamburg on June 4 from Chicago, after a passage of 35 days, of which 19 days had been occupied traversing the lakes, rivers and canals before leaving Quebec for the Atlantic passage.

The Northman is the first steamer in the new Chicago-Hamburg service to cross the ocean, and her voyage has been watched with interest as a test of the probable success of the undertaking. She was preceded by the Northwestern, a sister ship, but that vessel was detained by a casualty or several of them and lost the distinction of being the ship to make the first voyage in the new service.

The Northman, which is a steamer of 1,496 tons net, sailed from Chicago April 30, in command of Capt. Ross, with a general cargo. She sailed from Montreal May 17 and Quebec two days later; on May 22 she sailed from Sydney, after coaling. The round voyage is expected to take sixty days.

SHIPMENTS of iron ore from the head of Lake Superior, including Duluth, Superior and Two Harbors, for this season up to June 1, are a full million tons short of the total for the same period last year, due to the late opening of navigation. The total for this year is 788,549 tons, and all of it went forward in May. Last year's figures were 1,790,999 tons, or more that double the amount.

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the Eastern freight market as follows:

The demand for grain tonnage has shown a little more animation during the present week, more particularly for August and later loading, but so far no business has transpired, owners' and shippers' ideas being too far apart. For prompt loading, however, the inquiry continues very limited and what orders are in the market are chiefly for old business. Chartering in other directions has been on a very limited scale, owners generally preferring to hold for higher rates than are at present offered. There is some further demand for steam tonnage to carry case oil to the Far East, another charter having been effected on the basis of 30 and 31 cents to Japan and further tonnage could also be placed on a similar basis. The inquiry for coal tonnage to the Brazils and River Plate still keeps up, but shippers do not yet feel inclined to meet owners' demands. Timber charterers are showing more disposition to take up additional vessels, but owners are not prepared to fix, excepting at an advance over the last rates paid.

The market for sail tonnage continues characterized by inactivity, and although no change in rates can be noted, a lack of stability is apparent.

COPPER INDUSTRY AND DEVELOPMENT.

Copper consumption, both in the United States and Europe, attained its greatest magnitude within the past two years and a half, production being strained to keep pace with the necessities of its use. There have been times when production was hardly able to meet the demands of the legitimate trade. According to a German authority on the metal trade, in 1900, the world's production of copper aggregated about 279,000 metric tons, an increase of 8,200 tons as compared with the preceding year. Toward this total the United States contributed 268,800 tons.

Collision—Subsequent Negligence of Injured Vessel.—In an action for collison, it appeared that a ferryboat struck a scow in tow on the forward end, which projected with an overhang. The collision was the fault of the ferryboat. The man on the tug examined her at the time with a lantern, it being dark, and the scow being heavily laden and deep in the water. He discovered no apparent damage, and the tow proceeded. When some distance from the place of collision, the scow sank. An inspection after she was raised showed injury below the water line. Held, insufficient to show negligence on the part of the tow in continuing on the voyage, so as to relieve the ferryboat from the consequences of the collision. The Albert H. Ellis, 107 Fed. Rep. (U. S.) 303.

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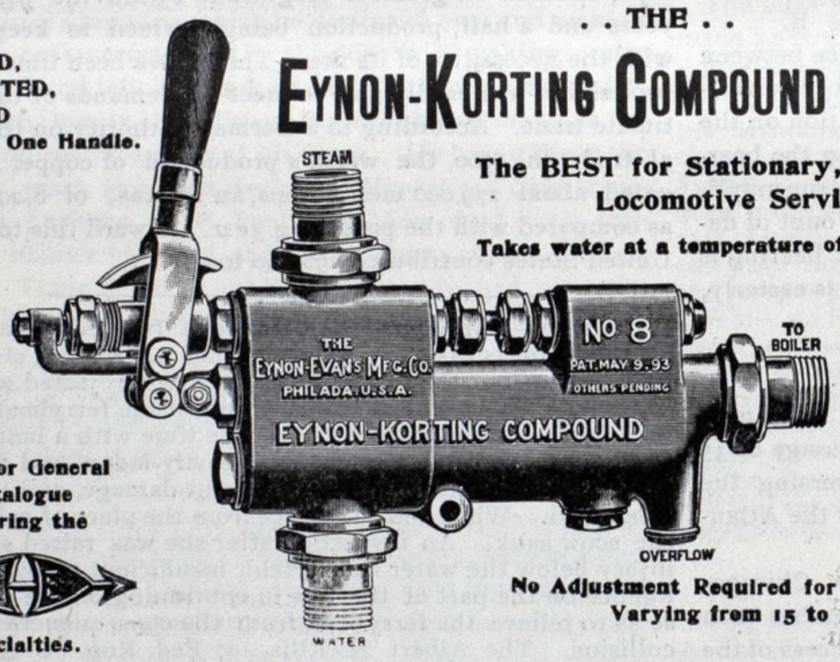

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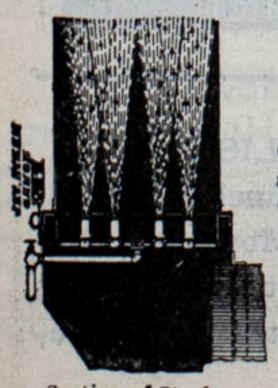

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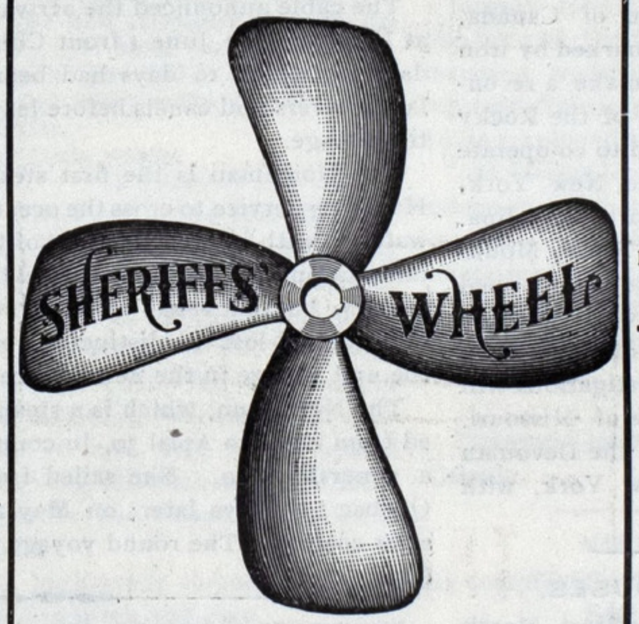

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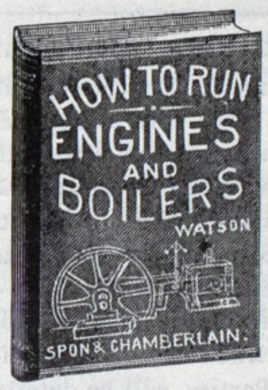

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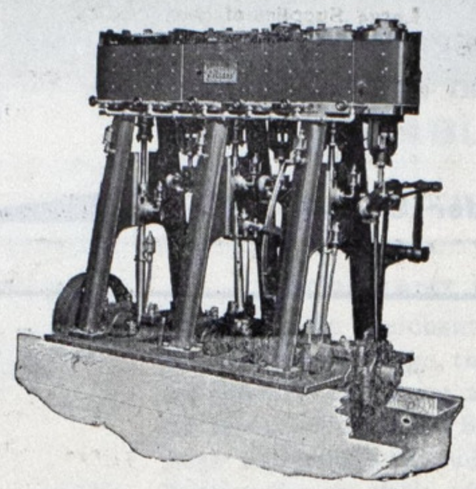

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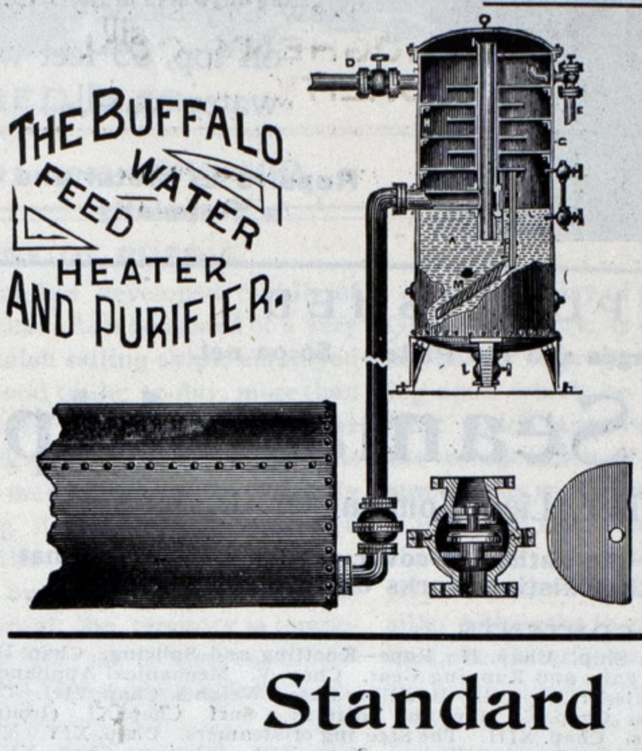

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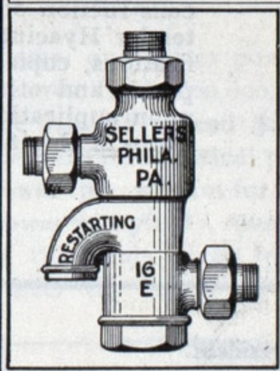

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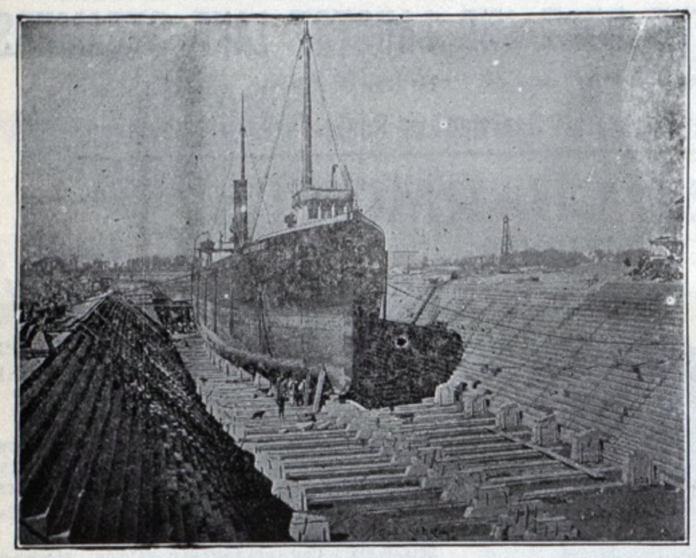

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